

**INSTITUTE OF PUBLIC HEALTH  
COLLEGE OF MEDICINE AND HEALTH SCIENCES  
UNIVERSITY OF GONDAR**

**A THESIS PROPOSAL SUBMITTED TO INSTITUTE OF PUBLIC HEALTH,  
GONDAR COLLEGE OF MEDICINE AND HEALTH SCIENCES, UNIVERSITY  
OF GONDAR IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF PUBLIC HEALTH**

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Full title of the project	ASSESSMENT OF RISKY SEXUAL BEHAVIOR TO HIV/AIDS AND ASSOCIATED FACTORS AMONG TRADITIONAL GOLD MINERS IN BERO WOREDA, BENCH MAJI ZONE, SOUTHERN ETHIOPIA.
Duration of project	February to June 2012
Study area	Bero Woreda, Bench maji zone, southern Ethiopia
Total cost of the project	21915.18 Birr.
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## **Acronyms**

AIDS	Acquired Immuno Deficiency Syndrome
ANC	Antenatal Care
AOR	Adjusted Odds Ratio
CSW	Commercial Sex Workers
EDHS	Ethiopian Demographic and Health Survey
EIFDDA	Ethiopian Inter-faith Forum for Development, Dialogue and Action
HIV	Human Immune deficiency Virus
STI	Sexually Transmitted Infection
UNAIDS	United Nations Joint Program on HIV/AIDS
WHO	World Health Organization

## **Summary**

### **Introduction**

HIV/AIDS has been major health problem of the world for decades of years. Its burden is high in developing countries especially in sub Saharan Africa. Ethiopia is one of the most seriously affected countries in the world by the epidemic. In 2010, nationally an estimated 1.21 million Ethiopians were living with HIV.

Unprotected sex with multiple partners is the greatest risk factor for HIV infection in developing countries. In Ethiopia risky sexual behaviors such as having multiple sexual partners and unprotected sex with non regular and non cohabiting partner are the major factors that place people at risk of exposure to HIV.

Several studies have shown that miners are more likely to have unsafe sexual behaviors such as low levels of condom use, high number of concurrent partnerships and visiting commercial sex workers. In Ethiopia there are more than half a million traditional gold miners. However, there is lack of solid data and empirical research regarding the risky sexual behavior of this group of population.

**Objective:** To assess the prevalence of risky sexual behavior to HIV/AIDS and factors associated with these behaviors among traditional gold miners.

**Methods:** Community based cross-sectional quantitative study design will be conducted from April 5 to 20/2012 to assess the prevalence and the associated factors of risky sexual behavior to HIV/AIDS among traditional gold miners. Stratified systematic random sampling will be used to select the study subjects. Data will be collected by trained data collectors. Face to face interview technique using structured questionnaire will be used to collect data from the selected samples. The collected data will be entered using Epi-Info version 6 and analyzed using STATA version 11 software. Crude and adjusted logistic regression analyses will be used to identify the associated factors using logistic regression analyses model. Finally, the results will be presented with odds ratio (OR) and 95% confidence interval (CI) as well as appropriate tables and graphs.

**Work plan and budget:** The project will start in April 5/2012 and end in April 20/2012. The total budget required for the project is Birr 21915.18 Birr.

## **1. Introduction**

### **1.1 Statement of the problem**

Globally, an estimated 34 million people were living with HIV at the end of 2010. During the same year there were 2.7 million new infections globally. More than two-third of the global total people living with HIV resided in sub-Saharan Africa, a region with only 12% of the global population. Of all the people who acquired HIV infection globally in 2010, 70% (1.9 million) of new infections were in Sub-Saharan Africa (1).

Ethiopia is among the countries affected greatly by HIV/AIDS epidemic. In 2010, nationally an estimated 1.21 million Ethiopians were living with HIV and the prevalence was 7.7 percent in urban and 0.9 percent in rural (2). In 2009 the number of new infections was about 131,145 at an incidence rate of 0.28%(3).

Sexual behavior is one of the most significant factors in the spread of HIV as the vast majority of people newly infected with HIV in sub-Saharan Africa are infected during unprotected heterosexual intercourse (4, 5). In Ethiopia, as in the rest of sub-Saharan Africa, the dominant modes of HIV spread has been through unprotected heterosexual contact (87%) and vertical transmission from mother to child (10%)(2, 6) implying sexual behavior is the most important variable in determining HIV infection.

A study conducted in china found higher rate of high risk sexual behavior among miners. The study indicated that 9.4% of miners admitting to looking for commercial sex workers (CSW). Among those who looked for CSWs, 77.2% did not use condoms. During the past 12 months, 82.9% of miners had not used a condom and 14.7% occasionally used condoms (7).

Many studies in Africa revealed high HIV prevalence among miners. For example, mining company AngloGold Ashanti in 2007 estimated HIV prevalence of 30% among employees in South Africa and between 15% and 20% at Geita in Tanzania while the



national average was 9% at that time(8). Study in Boure, Upper Guinea has also shown that majority of traditional gold miners (81.6%, 95% CI 77.1, 86.1) did not used condom at last sex while only (18.4%, 95% CI 13.9, 22.9) used condom (9). Another study conducted in five mining areas of south Africa indicated that there was relatively a high proportion of participants having multiple sexual partners (27%) and a lack of condom use with non-regular sex partners (23%) in 2007(10).

The 2008 Health Impact Evaluation found higher rates of high risk sexual behavior compared to the 2005 Ethiopia Demographic and Health Survey (EDHS). In particular, the 2008 study reported higher risky sexual behavior among the youth, rural people, the uneducated and those from the lowest wealth quintile (11, 12).

Preliminary report of EDHS 2011 indicated that among women and men who had two or more partners, 47 percent and 16 percent, respectively reported using a condom at the last sexual intercourse in the past 12 months. Fifty four percent of urban men and 6 percent of rural men who had two or more partners in the past 12 months reported using a condom at their last sexual intercourse (13).

In Ethiopia anecdotal evidence indicates that there are more than half a million traditional gold miners in six regions of the country. However, information on sexual activity among traditional gold miners in the country is scarce (14).

Therefore, this study will provide information regarding risky sexual behavior among traditional gold miners in Bero wereda, Bench Maji zone, Southern Ethiopia. The result of this study will help for designing suitable interventions for the prevention and control of the epidemic.

## **1.2 Review of Related Literature**

### **1.2.1 Risky Sexual Behavior**

Many years have passed since the HIV epidemic has been a threat to mankind around the world. Its burden, however, is highest in developing countries especially in sub-Saharan Africa. Its transmission in developed world had been highly attributed to

homosexuality and drug abuse while heterosexual transmission plays a major role in developing countries(1, 4). According to the World Health Organization (WHO) report the incidence of HIV infection globally declined by 15% between 2001 and 2010. In sub Saharan Africa the incidence was decreased by 16% between 2001 and 2010 (1).

The most important factor accounting for these encouraging declines in new HIV infections in many countries is behavioral change. Among young people, drops in HIV incidence have been associated with a significant positive trend in important behavior indicators, including increased condom use, delayed sexual debut, and reductions in multiple partnerships (4).

In Ethiopia the national HIV prevalence showed declining trend overtime. According to the 2009 Antenatal Care (ANC) sentinel surveillance report, at the national level HIV prevalence declined from 5.7% in 2003 to 2.6% in 2009 in all sentinel sites. Behavioral change takes the part in addition to other factors for the observed decline. However, the epidemic still remains being public health problem in the country (15).

Risk arises from individuals engaging in risk-taking behavior for variety of reasons (16). Individuals engage in risky sexual behavior by choice, usually for pleasure; by convention: culture, peer pressure or coercion; or by necessity (17).

Having unprotected sex with multiple partners remains the greatest risk factor for HIV infections in sub Saharan Africa (4). In Ethiopia having multiple sexual partners and unprotected sex with non regular and non cohabiting partner are risky sexual behaviors that place people at risk of exposure to HIV(12).

Different reports indicate that female sex workers, migrant workers, long distance drivers, uniformed forces and discordant couples are the most at risk population groups in Ethiopia (6, 18).

According to John Connell and Joel Negin, miners leave home for extended periods and live in intense, male-dominated and high-risk environments. They concluded that miners are more likely to have unsafe sexual behaviors such as low levels of condom use, high number of concurrent partnerships and visiting commercial sex workers (19).

A study in China found that 61.2% of miners never used condoms with female sex workers and 66.1% of the miners had at least 2 sexual partners in the past 12 months, with the most being 70 partners in the past 12 months (20). Study conducted in a mining area of Tanzania also revealed that most Tanzanian male mine workers (65%) and male community members (54%) have more than one sex partner in the last 12 months. Payment for sex was common, with 61% of adult male community members and 55% of Tanzanian male mine workers had paid for sex in the last year. Of these men, 75% of those from the community and 85% of Tanzanian mine workers were not always using condoms for paid sex (21).

### **1.2.2 Associated Factors for Risky Sexual Behaviors**

The factors that may exacerbate the HIV vulnerability of mine workers include dangerous working conditions, boredom and loneliness, lack of social cohesion and duration of time spent away from home. This may induce a person to behave in a way that she or he otherwise would not under normal circumstances such as engaging in risky sexual behavior (22).

Population migration and mobility are also major contributors to the risky sexual behavior as they increase the number of sexual partnerships as well as contacts with high-risk groups such as sex workers. Loneliness, insecurity and freedom from social norms provide an impetus to risky sexual behavior (18, 23).

In most contexts, high levels of alcohol consumption are the most likely factors to be associated with risky sexual activity. A study in small towns and rural villages of Botswana indicated men and women who screened positive for heavy drinking had over three times the odds of reporting a history of unprotected sex with a non monogamous partner and had strongly associated with having multiple partners for both men and women compared to non alcohol users(24). A study conducted for the co-occurrence of substance use and risky sexual behavior revealed that 41.6% and 29.6% of multiple sexual partners and non condom use occurred together respectively(25).

Stueve and O'Donnell examined relations between early alcohol use and subsequent alcohol and sexual risk behaviors among urban adolescents and found similar positive connections between substance use and risky sexual behaviors (26). A study conducted in Cambodia revealed also that among boys and girls risky sexual behavior is significantly associated with higher levels of substance use (27).

A desk review of studies in Ethiopia has shown that there was substantial evidence linking STIs and HIV infection with alcohol abuse and drug use such as khat chewing followed by drinking alcohol, which were associated with risky sexual behavior(28).

Results of different studies in Ethiopia show that there is a positive association of khat chewing and risky sexual behavior. For example a study conducted in Assandabo woreda found that individuals who chewed Khat were two times more likely to have multiple sexual partner compared to who did not use khat (29). Another study conducted in Southern Nations Nationalities and peoples region and the Oromia regional states of Ethiopia also found similar association of kcat chewing and multiple sexual practice (30).

Several studies have shown that age, marital status, residence and level of education are associated with condom use. A study in Mozambique revealed that the likelihood of condom use was positively related to age only among never-married men; in all subgroups, it increased with level of education. Condom use was low among ever-married individuals, but was significantly more common among those whose last partner had been someone other than a spouse (31). Study in Ethiopia showed that compared to married or cohabited, more singles reported having multiple sexual partners (0.9% Vs 7% (11).

Disparities in sexual behavior including age at first sexual intercourse, condom use and multiple sexual partners between men and women were reported by various studies (13, 32). A study in Kenya also revealed that ethnic difference, level of education, age and marital status were associated with risky sexual behavior for both women and men (33).

Knowledge about HIV prevention and ways of transmission influence risky sexual behavior of individuals. Different reports indicated that, behavioral change and increased comprehensive correct knowledge reduces HIV incidence and prevalence in most countries with high HIV prevalence (4, 28). A national survey conducted in Ethiopia for the Health Impact Evaluation in 2008 found that knowledge of HIV prevention methods was 28.1% among women – lower than the 34.6% reported by EDHS 2005(11, 12). However, another study in Ethiopia among Gondar high school students show that knowledge about HIV/AIDS has to be strengthened by continues health education to bring behavioral changes as students who have adequate knowledge engaged in risky sexual practices(34).

A multi-woreda KAP study conducted by Ethiopian Inter-faith Forum for Development, Dialogue and Action revealed that 20% of respondents had multiple sexual partners during their life time while 5% had extramarital/partner sex in the last 12 months. About 30% had ever used condom. Moreover, only 21% had used condom during their most recent sexual encounter. Among those who had extramarital/partner sex in the last 12 months 59% used condom (35).

According to UNAIDS global report there is evidence to suggest that first having sex at a later age reduces susceptibility to infection per act of sex, at least for women (4). Perception of risk to HIV/AIDS is also observed to have relation with risky sexual behavior. According to a study in Kenya the association between perception of risk and reporting of risky sexual behavior is stronger for Kenyan men. Men who perceived themselves to be at 'low risk' had about double the odds of those who perceived themselves to be at 'no risk'; those who perceived 'moderate to great risk' had more than three times the odds of reporting risky sexual behavior compared to 'no risk'(33).

### **1.3 Justification**

More than half a million individuals are involved in traditional gold mining in six regions of Ethiopia. Oromia, Tigray and Benishangul-Gumuz regional states are the top three gold producing regions. Gambella, Southern Ethiopia and Amhara regional states also produce gold(14).

Bero wereda is one of the areas where gold is produced by traditional gold miners. It is the remotest and hard to reach wereda in Bench Maji zone of southern Ethiopia. Despite of inadequate health facilities and services, there are many traditional gold miners in the wereda. Most of them are migrants from different regions and zones of Ethiopia with different sexual behavior and came for the purpose of gold mining. They are sexually active and are distanced from traditional norms of their community. They earn much money and usually drink alcohol.

There are also commercial sex workers nearby mining sites whose clients are traditional gold miners. A prolonged separation of the miners from their regular partner and the absence of recreation center around the mining site lead the traditional gold miners to visit the nearby sex workers.

However, there is a lack of solid data and empirical research regarding the risky sexual behavior to HIV/AIDS among traditional gold miners. Therefore, this study will provide prevalence and the associated factors of risky sexual behavior to HIV/AIDS among traditional gold miners.

## **2. Objectives**

### **2.1 General Objective**

To assess the prevalence of risky sexual behavior to HIV/AIDS and factors associated with these behaviors among traditional gold miners in Beru wereda, Bench Maji zone, Southern Ethiopia.

### **2.2 Specific Objectives**

To determine the prevalence of risky sexual behavior to HIV/AIDS among traditional gold miners in Beru wereda.

To identify the factors associated to risky sexual behavior among traditional gold miners in Beru wereda.

### **3. Methods**

#### **3.1 Study Design and Period**

Community based cross-sectional quantitative study design will be used from April 5 to 20/2012 to assess the prevalence and the associated factors of risky sexual behavior to HIV/AIDS among traditional gold miners in Bero wereda administration.

#### **3.2 Study Area**

The study will be conducted in Bero wereda where traditional gold mining is taking place. Bero wereda is found in Bench Maje zone, SNNPR, southwest Ethiopia, 710 km from Addis Ababa. The wereda has one urban kebele and 12 rural kebeles with estimated total population of 14,384 among which 11,870 live in rural kebeles in 2012 (36). Traditional gold mining takes place in four rural kebeles, namely Siyali, Gesena, Gabisa and Shola. A total of 4,604 people live in these four kebeles. Of these 2,585 are 15 and above years of age and most of them engaged in traditional gold mining.

#### **3.3 Source Population and Study Population**

##### **3.3.1 Source Population**

The source population will be all traditional gold miners of age 15 years and above in Bero wereda.

##### **3.3.2 Study Population**

The study population will be all traditional gold miners of age 15 years and above in Bero wereda.

#### **3.4 Inclusion and Exclusion Criteria**

##### **3.4.1 Inclusion Criteria**

People of age 15 years and above who are currently engaged in traditional gold mining in the wereda will be included in the study.

##### **3.4.2 Exclusion Criteria**

Traditional gold miners who are seriously sick during data collection period will be excluded.

#### **3.5 Sample Size and Sampling Procedure**

##### **3.5.1 Sample Size Determination**

The sample size for the study will be estimated using a single population proportion. A prevalence of all dependent and independent variables in different studies among



miners will be considered and the one which gives the largest sample size will be used to determine the sample size. Thus, prevalence of alcohol use (48.3%) among miners which was obtained from a study conducted in Tanzania will be used to determine the sample size (21). Other quantities used in the sample size determination will be margin of error 0.05, and confidence level at 95%.

Thus to determine the sample size we used the formula:

$$n = (Z_{1/2})^2 p (1-P) / d^2$$

Where P = Proportion

Z = Z- score associated with 95% confidence level =1.96

d = Margin of error = 0.05

Therefore,  $n = (1.96)^2(0.483)(0.517) / (0.05)^2 = 384$

By adding contingency for non response rate of 10 % (using a finite population formula) the following final sample size is obtained.

$$N = [1 / (1-10\%)] \times 384 = 427.$$

### 3.5.2 Sampling Procedure

Assuming geographic difference among kebeles, the four kebeles will be considered as strata. For each stratum number of subjects to be selected will be determined based on the size of the population in the stratum. Using list of traditional gold miners obtained from local administration (if not available, fresh list of traditional gold miners will be prepared), subjects will be selected from each stratum proportionally using systematic random sampling method proportional to the size of population in the stratum.

## **3.6 Variables of the Study**

### **3.6.1 Dependent Variable**

Risky sexual behavior

### **3.6.2 Independent Variables**

**Socio demographic and economic variables:** age, sex, ethnicity, age at first sex, migration, marital status, religion, income and education.

**Behavioral factors:** substance use includes alcohol use, khat chewing, shisha and others.

**Cognitive factor:** Knowledge, attitude, self perception to risk of HIV

**Socio cultural factors:** community perception to multiple partner and condom use.

## **3.7 Operational Definition**

**Regular Sexual partner:** Includes spouse or a sex partner who has cohabited (lived-in) for twelve months or longer.

**Risky sexual behavior:** Having multiple (more than one) sexual partners or having sex other than regular partner without condom.

**Condom use:** using condom every time they have sexual intercourse with non regular partner in the period of interest.

**Multiple sexual partners:** more than one sexual partner.

**Female sex worker:** a female who sells sex for money

**Knowledge:** if they correctly identified the three main ways to prevent HIV transmission: abstinence, being faithful to one uninfected partner and condom use then they will be considered as knowledgeable.

**Migrant:** A person is considered as a migrant if he/she was born in another rural or town which is different from the current wereda.

## **3.8 Data Collection Procedures**

### **3.8.1 Data Collection Tools**

To collect data from participants, structured questionnaire will be prepared in English and will be translated in to Amharic for interview. The questionnaire will be tested and will be modified accordingly. Experienced data collectors male and female among which at least one from each sex who know both Amharic and Benchigna (local language), as there are few traditional gold miners who do not speak Amharic, will be recruited. They will be given training on how to collect required data. Finally face to face interview technique will be used to collect data from eligible study participants using structured questionnaires.

### **3.8.2 Data Quality Control Issue**

To ensure quality of data, pre-test of data collection tools will be done on respondents who will not be included in the main study by taking 5% of the total sample size. The necessary correction will be done after the pre test. Appropriate measure will be taken on time for completeness before data entry. The collected data will be checked out for the completeness, accuracy and clarity by the principal Investigator and supervisors. This quality checking will be done daily after data collection and amendments will be made before the next data collection.

Data clean up and cross-checking will be done before analysis. Training will be given to data collectors and supervisor for two days on how to approach study subjects and on how to use the questionnaire. Supervision will also be done at the spot by principal investigator and supervisors.

## **3. 9 Data Processing and Analysis**

Before conducting the analytical methods, the completeness and accuracy of data will be checked. Then the variables will be coded and data will be entered to the computer using EPI-Info version 6. Then data cleanup will then be done to avoid errors and will be exported and analyzed by the program of STATA version 11.

The descriptive statistic and multiple logistic regressions (after checking for fulfillment of the assumptions) will be carried out to compute the different rate, proportion and

relevant association. All variables will be entered and variables that found to be significant at p value 0.2 with 95% CI will then be entered into the logistic regression model using backward stepwise method. Finally those significant variables at p value 0.05 and at 95% confidence interval will be used to determine the actual predictors for risky sexual behavior.

#### **4. Ethical Consideration**

Ethical clearance will be obtained from Institute of Public Health Institutional Review Board, University of Gondar. Official permission will also be secured from the respective officials. Respondents will be informed about purpose of the study and the interview will be held only with those who give verbal or written consent to participate. The right of participants to withdraw from the study at any stage without any precondition will be kept, and disclosed to respondents.

During data collection privacy will be addressed. Confidentiality of the information will be assured and kept anonymously. This will be maintained by avoiding personal identifiers. Participants will be counseled by health professionals to reduce risky sexual behavior.

#### **5. Dissemination of the Result**

The copies of this study will be given to University of Gondar Institute of Public Health, Bench Maji zone health department, Bero wereda health office and other concerned bodies so that they can use the results for planning and implementation of intervention programs.

Any attempt will also be made to present the paper on annual scientific meetings and conferences and to publish on local and international research journals.

## 6. Work Plan

A Gantt chart showing a work plan to assess risky sexual behavior and the associated factors to HIV/AIDS among traditional gold miners in Bero wereda, Bench Maji zone, Southern Ethiopia, 2012.

	Activity	Responsible Agent	Feb	March	April	May	Jun
1	Development of the research proposal	Investigator					
2	Securing ethical clearance						
3	Securing budget	Funding agency					
4	Ethical clearance from respective authorities	Investigator					
5	Recruitment and training of data collectors and supervisor	Investigator					
6	Pre-testing questionnaire	Investigator, supervisors and data collectors					
7	Data collection	Investigator, supervisors and data collectors					
8	Data coding, entry and cleaning	Investigator and data entry clerk					
9	Data analysis	Investigator					
10	Thesis write up & submission of first draft	Investigator					
11	Second draft submission	Investigator					
12	Defense	Investigator					
13	Final report submission	Investigator					

## 7. Budget Breakdown

Budget breakdown for conducting a research on assessment of risky sexual behavior to HIV/AIDS and associated factors among traditional gold miners in Bero woreda, Bench Maji zone, Southern Ethiopia, 2012.

Principal investigator: Kassahun Assefa.

Advisors: 1. Kassahun Alemu

2. Yifokere Tefera

Budget Category						
<b>Part I: Personnel costs</b>						
S .No	Title	Qualification	Unit costs	No of days	Total/ETB/	Activity
1.	Principal Investigator	BSc	90	20	90x20= 1800	For training, pre test, Transporting days and data collection
2.	Data collector	BSc or diploma	90	15	90x15x8=10800	>> >>
3.	Supervisors	BSc	90	15	90x15x2= 2700	>> >>
	Sub total				15300.00	
<b>Part II. Equipment &amp; supplies</b>						
S .No	Type	Quantity	Unit costs	Total/ETB/	Activity	
1	Pen	11	2.00	22.00		
2	Pencil	22	1.00	22.00		
3	CD	2	6 .00	12.00		
4	NOTE PAD	11	10 .00	110.00		
5	BINDING	11	6.00	66.00		
6	Duplicating the questioner	3500	0.40	1363.20		
7	Printing the final proposal	60	3.00	180.00		
8	Duplicating the proposal	2x60	0.40	48.00		

9	Printing the thesis report	75	3.00	225.00	
10	Duplicating the thesis report	75x2	0.40	60.00	
	Sub total			2108.20	
<b>Part III. Transportation</b>					
S.NO	Transport	Unit cost/ETB/	Number of trip	Total /ETB/	Justification
	From Mizan to Dimma	110.00	2x4	880.00	For pretesting
	From mizan to Bero	155.00	2x11	3410.00	For data collection and supervision
	Sub total			4290.00	

#### Budget summery

Category	Cost in ETB
Personal costs	15300.00
Stationary costs	2108.20
Transportation	4290.00
Grand total	21698.20

With 10% contingency, total budget required will be birr 21915.18.

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## **Annexes**

### **Annex 1.**

#### **Declaration**

I, the undersigned, senior MPH student declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Place of submission: School of public Health, College of Medicine and Health Sciences, University of Gondar.

Date of Submission: \_\_\_\_\_

This thesis work has been submitted for examination with my/ our approval as university advisor(s).

#### **Advisors**

Name

Signature

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

## **Annex 2.**

### **ASSURANCE OF INVESTIGATOR**

The undersigned agrees to accept responsibility for the scientific, ethical and technical conduct of the research project and for provision of required progress reports as pre terms and conditions of the research and publications office of the University of Gondar.

Name of the student: \_\_\_\_\_

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

### **Approval of the advisor (s)**

#### **Advisors**

	Name	Signature	Date
1.	_____	_____	_____
2.	_____	_____	_____

### Annex 3. Conceptual frame work

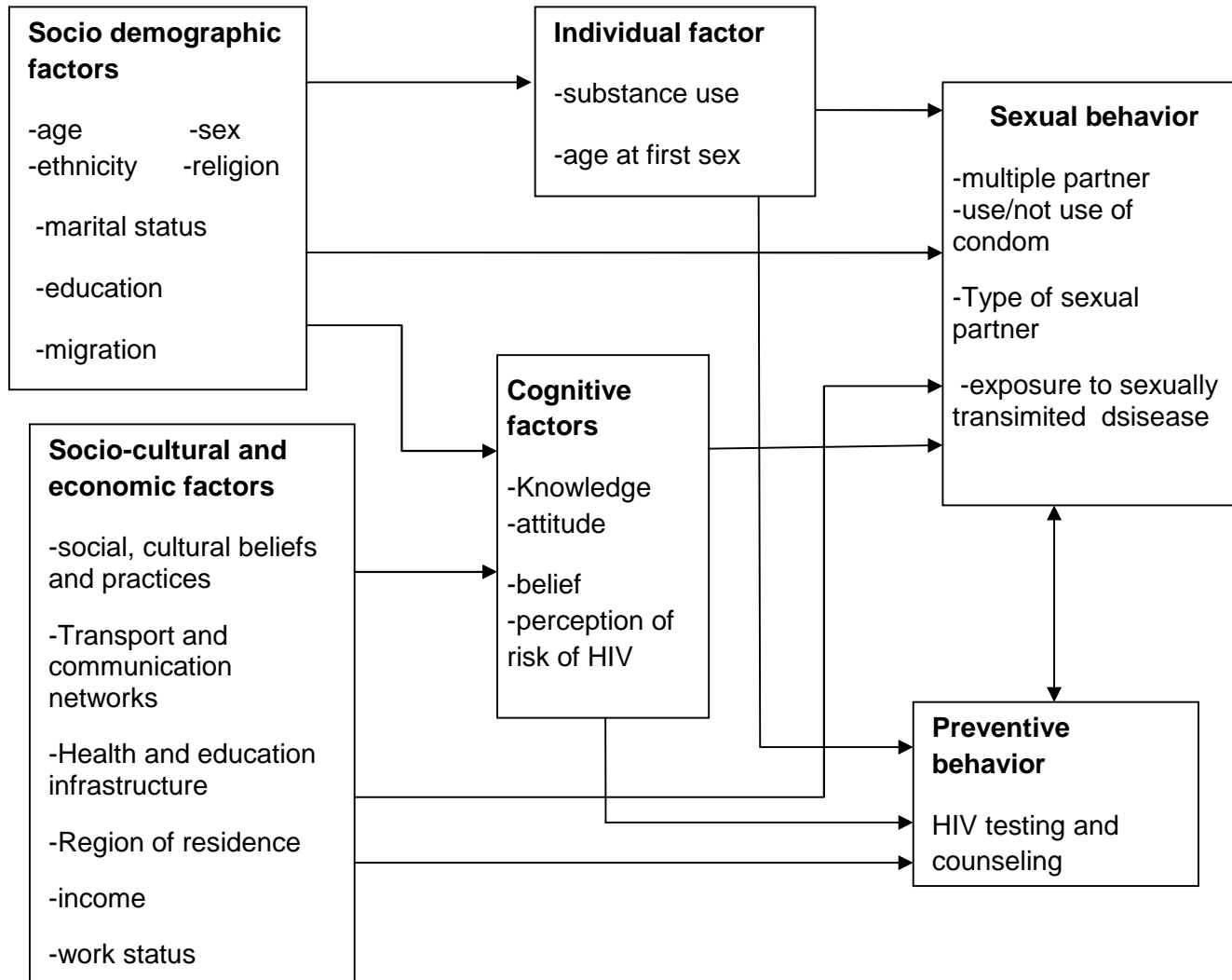


Figure 2: A conceptual framework for the study of risky sexual behavior among traditional gold miners in Bero woreda.

## Annex 4: Dummy Tables

**Table 1: Socio demographic characteristics of study subjects in Bero woreda, Bench Maji zone, southern Ethiopia, 2012**

Variables	Female		Male		Total number
	Number	Percent	Number	Percent	
<b>Age</b>					
<b>Religion</b>					
Orthodox					
Catholic					
Protestant					
Muslim					
No religion					
Others (specify)					
<b>Educational level</b>					
Can not read and write					
1-4					
5-8					
9-10					
Preparatory					
Technical and vocational certificate and above					
<b>Ethnicity</b>					
Amhara					
Oromo					
Tigre					
Bench					
Surma					
Kembata					
Other (specify)					

<p><b>Marital status</b></p> <p>Married</p> <p>Cohabiting</p> <p>Never married</p> <p>Divorced, separated, widowed</p>
<p><b>If you are married, are you currently living with your partner?</b></p> <p>Yes</p> <p>No</p>
<p><b>How long have you been separated?</b></p> <p>&lt; 1 month</p> <p>1 to 3 month</p> <p>4 to 6 month</p> <p>6 month to 1 year</p> <p>&gt; 1year</p>
<p><b>where is your place of birth</b></p> <p>In this woreda</p> <p>In Bench maji zone but not in this woreda</p> <p>In SNNPR but not in Bench maji zone</p> <p>In other region of the country</p>
<p><b>For how long have you lived continuously in this wereda?</b></p> <p>Less than 1 year</p> <p>1 to 3 years</p> <p>More than 4 years</p> <p>since birth</p>
<p><b>How much do you earn monthly? (Ethiopia birr)</b></p>

**Table 2: Sexual characteristics of study subjects in Bero woreda, Bench Maji zone, southern Ethiopia, 2012**

<b>Ever practice sex</b>	<b>Number</b>	<b>Percent</b>
Yes		
No		
<b>Age at first sexual intercourse</b>		
<b>Use of condom at first sex</b>		
Yes		
No		
<b>Had sex in the past 12 months?</b>		
Yes		
No		
<b>Type of partner during the last 12 months</b>		
Marital partner		
Cohabiting partner		
Commercial partner		
Non regular partner/casual		
<b>sexual partners you have in the last 12 months</b>		
One partner		
More than one partner		
No partner		
<b>use of condom during sexual intercourse in the past 12 months</b>		
Never		
Sometimes		
Always		



<b>Type of partner during last sexual intercourse</b>  Husband/Wife  Cohabiting partner  With irregular/causal partner  With commercial sex worker
<b>Used condom during last sexual intercourse?</b>  Yes  No
<b>Had had sexual intercourse by giving or receiving money or exchange of materials last 12 months?</b>  Yes  No
Used condom when sexual intercourse by giving or receiving money or exchange of materials last 12 months. Yes No

**Table3: Reported reasons for not to use condom at any sexual intercourse among study subjects in Bero woreda, Bench Maji zone, southern Ethiopia, 2012**

Reasons	Number	Percent
I trust my partner I don't like it Partner objection Not available Not comfortable It reduce sexual leasure In a hurry Too expensive Embarrassed to ask for or to buy I was Drunk Don't trust condom to prevent HIV Due to frequent condom breakage Used other contraceptive Want to have a child		

**Table4: Substance use of study subjects in Bero woreda, Bench Maji zone, southern Ethiopia, 2012**

	Yes	No
<b>How often do you drink alcohol?</b>		
Every day		
Every week		
Every month		
Sometimes		
On holydays		
Never drink alcohol		
<b>How often do you chew khat?</b>		
Every day		
Every week		
Every month		
Sometimes		
On holydays		
Never drink alcohol		
<b>How frequently do you use shisha?</b>		
Every day		
Every week		
Every month		
Sometimes		
On holydays		
Never drink alcohol		
<b>What other substances you use?</b>		
Specify		

**Table5: Knowledge, beliefs and self perception to HIV among study subjects in Bero woreda, Bench Maji zone, southern Ethiopia, 2012**

<b>Knowledge of HIV prevention</b>	<b>Number</b>	<b>Percent</b>
<b>Abstinence</b>		
Yes		
No		
Do not know		
<b>Be faithful</b>		
Yes		
No		
Do not know		
<b>Use of condom</b>		
Yes		
No		
Do not know		
<b>Beliefs</b>	<b>Number</b>	<b>Percent</b>
<b>Do you believe having multiple sexual Contact leads to HIV acquisitions?</b>		
Yes		
No		
Don't know		
<b>Do you believe alcohol consumption and drug uses can predispose to HIV acquisition?</b>		
Yes		
No		
Don't know		
<b>Perception</b>	<b>Number</b>	<b>percent</b>
<b>What is your chance of being infected with HIV/AIDS with your current behavior?</b>		
Very likely		
Likely		
Neither likely nor unlikely		
Unlikely		
Very unlikely		
<b>have you ever had voluntary counseling and testing for HIV</b>		
Yes		
No		

**Table6: Cultural and social related characteristics of study subjects in Bero woreda, Bench Maji zone, southern Ethiopia, 2012**

	Number	Percent
<b>Do you think your best friends use condom consistently to prevent HIV?</b>		
Extremely certain		
Certain		
Neither certain or uncertain		
Uncertain		
Very uncertain		
<b>My best friends advice/encourage me to use condom when having sexual intercourse</b>		
Strongly Agree		
Agree		
Neutral		
Disagree		
Strongly Disagree		
<b>Do the culture of the community support having multiple partners?</b>		
Yes		
No		
<b>Do the culture of the community support using condom?</b>		
Yes		
No		
<b>How long have you worked traditional gold mining?</b>		
Less than a Year		
2. 1 to 2 years		
3. More than 2 years		

**Table7: Variables to be evaluated for possible association with having multiple sexual partner in the past 12 months among traditional gold miners in Bero woreda, Bench Maji zone, Southern Ethiopia, 2012.**

Variables	Had multiple sexual partner		Crude OR	Adjusted OR
	Yes (n, %)	Not (n, %)		
<b>Sex</b> Male Female				
<b>Age</b>				
<b>Educational status</b> Can not read and write 1-4 5-8 9-10 Preparatory Technical & vocational certificate and above				
<b>Marital status</b> Married Cohabited Single Widowed, divorced				
<b>Religion</b> Orthodox Muslim Catholic Protestant No religion(other)				
<b>Ethnicity</b> Bench Amhara Oromo Tigre Surma Kembata Other(specify)				
<b>Age at first sex</b> 15-17 18-20 21-24 >25				
<b>Separation</b> living with partner Not living with partner				
<b>Duration of separation</b> < 1 month 1 to 3 month 4 to 6 month 6 month to 1 year > 1year				

<b>Migration</b> Migrant Not migrant
<b>Duration lived in the woreda</b> < one year 1-3 years >4 years Since birth
<b>Monthly Income</b> <300 301-499 500-999 1000-2000 >2000
<b>Alcohol use</b> Every day Every week Every month Sometimes On holydays Never drink alcohol
<b>khat chewing</b> Every day Every week Every month Sometimes On holydays Never drink alcohol
<b>Shisha use</b> Every day Every week Every month Sometimes On holydays Never drink alcohol
<b>Knowledgeable</b> Yes No
<b>Believe multiple sexual Contact leads to HIV acquisitions</b> Yes No
<b>Believe consumption and drug uses can predispose to HIV acquisition</b> Yes No
<b>Perception of risk of HIV</b> Very likely Likely Neither likely nor unlikely Unlikely Very unlikely
<b>Ever had voluntary counseling and testing for HIV</b> Yes No
<b>Duration of working in traditional gold mining</b> Less than a year 1 to 2 years More than 2 years

## **Annex 5:**

### **Information Sheet and Consent form**

Information Sheet and Consent form for clients participating on assessment of risky sexual behavior to HIV/AIDS and associated factors among traditional gold miners in Bero woreda, Bench Maji zone, Southern Ethiopia:

### **University of Gondar College of Medicine and Health Sciences Institute of Public Health**

**Name of Investigator:** Kassahn Assefa

**Name of the Advisers:** 1. Kassahun Alemu

2. Yifoker Tefera

### **Name of the Sponsor:**

Information sheet is prepared for participants of the study of risky sexual behavior to HIV/Aids and associated factors among traditional gold miners in Bero Woreda.

This information sheet is prepared by a research investigator whose main aim is to study risky sexual behavior to HIV/AIDS and associated factors among traditional gold miners in Beo woreda. It uses quantitative cross-sectional study in Bero woreda, Bench Maji zone, Southern Ethiopia.

The investigator is a final year MPH student from University of Gondar, College of Medicine and Health Sciences, Institute of Public Health.

**Purpose:** To study risky sexual behavior to HIV/AIDS and associated factors among traditional gold miners in Beo woreda. Risky sexual behaviors such as having multiple sexual partner and unprotected sex with non regular partner are mostly practiced among miners in the world which places people to be infected by HIV/AIDS and STIs. This problem is common in Africa where mining areas are characterized by inadequate

health facilities and services, inadequate transporting infrastructures, migrant population and less attention given population including commercial sex workers are common. These conditions are also observed in Bero woreda. So the study will try to assess the magnitude and associated factors of risky sexual behaviors of traditional gold miners in Bero woreda and will provide valuable information on factors which influence it for health care planners, managers and society and baseline information for further detailed researches in this aspect.

**Procedure:** For this study, participants will be invited to take part in this project. If they are willing to participate in this project, they need to understand and sign the agreement form. Then, they will be asked to give their responses by the data collectors. For the quantitative part of this study the participants are all traditional gold miners in Bero woreda. They will be interviewed through interviewer administered structured questionnaire. All the responses given by the participants and results obtained will be kept confidential and no one will have access to their responses except the principal investigator.

**Risk and Discomfort:** There is no risk by participating in this research project. However, you may feel that participating in this research project has some discomfort especially on wasting your time but this will not be too much when compared to the benefits it contribute for the interventions to control HIV/AIDS epidemic in the area in the future.

**Confidentiality:** The information that will be collected from this research will be kept confidential. Information about the participants that will be collected from the study will be stored in a file which will not have the name of the participants on it and will not be revealed to anyone except the principal investigator.

**Right to refuse or withdraw:** The study participants have full right to refuse from participating in this research (they can choose not to respond some or all questions) if they do not wish to participate. They have also full right to withdraw from this research at any time they wish to, without losing any of their right as a client in the health institutions.



**Whom to Contact:** This research project will be received and approved by the editorial review board (EBR) of Institute of Public Health, University of Gondar. If you want to know more information, you can contact the chairman of ERB

---

If you have any question contact any of the following individuals and you may ask at any time you want:

1. Kassahun Assefa (principal investigator)

Gondar, Ethiopia

Tel: 091101 52 40

2. Kassahun Alemu

Institute of Public Health, University of Gondar

Tel: 0911752466

3. Yifoker Tefera.

School of Public Health, University of Gondar

Tel:

## **Annex 6.**

### **Questionnaire (English and Amharic)**

#### **Part one: Socio demographic characteristics**

101. Sex of respondent?

1. Female
2. Male

102. How old are you at your last birth day?

1. [\_\_\_\_\_] age in completed year

103. What is your religion?

1. Orthodox
2. Catholic
3. Protestant
4. Muslim
5. No religion
6. Others (specify)

104. What is your educational status?

1. Can not read and write.
2. 1-4
3. 5-8
4. 9-10
5. Preparatory
6. Technical and vocational certificate and above.

105. To which ethnic group do you belong?

1. Amhara
2. Oromo
3. Tigre
4. Bench
5. Surma
6. Kembata
8. Other (specify)

106. What is your marital status?

1. Married
2. Never married
3. Divorced, separated, widowed
4. Cohabiting

107. If you are married, are you currently living with your partner?

1. Yes (skip to 110)
2. No

108. How long have you been separated?

1. < 1 month
2. 1 to 3 month
3. 4 to 6 month
4. 6 month to 1 year
5. > 1year

109. Where is your place of birth?

1. In this woreda
2. In Bench maji zone but not in this woreda
3. In SNNPR but not in Bench maji zone
4. In other region of the country

110. For how long have you lived continuously in this wereda?

1. Less than 1 year
2. 1 to 3 years
3. More than 3 years
4. since birth

111. How much do you earn monthly? (Ethiopia birr)

- 1 Birr [-----]
- 2 Don't know

## **Part two: Substance use**

201. How often do you drink alcohol?

1. Every day
2. Every week
3. Every month
4. Sometimes
5. On holydays
6. Never drink alcohol

202. How often do you chew khat?

1. Every day
2. Every week
3. Every month
4. Sometimes
5. On holydays
6. Never drink alcohol

203. How frequently do you use shisha?

1. Every day
2. Every week
3. Every month
4. Sometimes
5. On holydays
6. Never used shisha

204. What other substances you use?

-specify

**Part three: Sexual behavior**

301. Have you ever had sexual intercourse?

1. Yes
2. No (skip to question 401)

302. How old were you when you had the first sexual intercourse

(\_\_ ) Years

303. Have you used condom at your first sexual intercourse?

1. Yes
2. No

304. Have you had sex in the past 12 months?

1. Yes
2. No (skip to question 311)

305. Think about your sexual partner you have had in the last 12 month (Multiple answer is possible)

- |                       |                               |
|-----------------------|-------------------------------|
| 1. Marital partner    | 3. Commercial partner         |
| 2. Cohabiting partner | 4. Non regular partner/casual |

306. How many sexual partners did you have in the last 12 months?

1. One partner
2. More than one partner
3. No partner

307. How often do you use condom during sexual intercourse in the last 12 months?

1. Never
2. Sometimes
3. Always

308. Why didn't you and your partner use condom during sexual intercourse?

1. I trust my partner
2. I don't like it
3. Partner objection
4. Not available
5. Not comfortable
6. It reduce sexual pleasure
7. In a hurry
8. Too expensive
9. Embarrassed to ask for or to buy
10. I was Drunk
11. Don't trust condom to prevent HIV
12. Due to frequent condom breakage
13. Used other contraceptive
14. Want to have a child

309. With whom did you have your last sexual intercourse?

1. Husband/Wife
2. Cohabiting partner
3. Irregular/causal partner
4. Commercial sex worker

310. The last time you had sex, did you used condom?

1. Yes
2. NO

311. Have you ever had sexual intercourse by giving or receiving money or exchange of materials in past 12 months?

1. Yes
2. No

312. In the past 12 months you had sexual intercourse by giving or receiving money or exchange of materials, were condom used?

1. Never
2. Sometimes
3. Always

## **Part four: Knowledge, attitude and self perception to HIV.**

### **Knowledge**

401. Can people protect themselves from HIV by using a condom correctly every time they had sex (excluding other transmission route)?

1. Yes
2. No
3. Don't know

402. Can people protect themselves from HIV by having one uninfected faithful Sex partner? (Excluding other transmission route)?

1. Yes
2. No
3. Don't know

403. Can people protect themselves from HIV by abstaining from sexual intercourse?

1. Yes
2. No
3. Don't know

### **Beliefs**

404. Do you believe having multiple sexual Contact leads to HIV acquisitions?

1. Yes
2. No
3. Don't know

405. Do you believe alcohol consumption and drug uses can predispose to HIV acquisition?

1. Yes
2. No
3. Don't know

### **Perception to HIV**

406. What is your chance of being infected with HIV/AIDS with your current behavior?

1. Very likely
2. Likely
3. Neither likely nor unlikely
4. Unlikely
5. Very unlikely

407. No need to disclose, have you ever had voluntary counseling and testing for HIV?

1. Yes
2. No

**Part five: Cultural and social factors.**

501. Do you think your best friends use condom consistently to prevent HIV?

- |                                 |                   |
|---------------------------------|-------------------|
| 1. Extremely certain            | 4. Uncertain      |
| 2. Certain                      | 5. Very uncertain |
| 3. Neither certain or uncertain |                   |

502. My best friends advice/encourage me that I should use condom when having sexual intercourse with my partner

- |                   |                      |
|-------------------|----------------------|
| 1. Strongly Agree | 4. Disagree          |
| 2. Agree          | 5. Strongly Disagree |
| 3. Neutral        |                      |

503. Do the culture of this community (you are now living with) permits having multiple sexual partner?

1. Yes
2. No

504. Do the culture of this community (you are now living with) accept using condom?

1. Yes
2. No

505. How long have you worked traditional gold mining?

1. Less than a Year
2. 1 to 2 years
3. More than 2 years

**በጎንደር ዩኒቨርሲቲ በሕክምናና ጤና ሳይንስ ኮሌጅ ማሕበረሰብ ጤና ኢንስቲትዩት የባሕላዊ ወርቅ አምራቾችን ለኤቶ አይቪ አጋላጭ የስነ-ወሲብ ባህሪ ለማጥናት የተዘጋጀ መጠይቅ**

**መመሪያ:-** ለ ያንዳንዱ ጥያቄ ከአማራጮቹ ውስጥ የተሰጠውን መልስ በማክበብ በተዘጋጀው የመልስ መጻፊያ ቦ የተከበበውን ቁጥር/ኮድ/ ጻፍ::

**ክፍል አንድ:- የግለሰብ ማህበራዊና ዲሞግራፊያዊ መረጃ**

ጥያቄና አማራጭ መልሶች	መልስ/ኮድ/	መግለጫ
101. የ		
1. ወንድ	<input type="text"/>	
2. ሴት		
102. ዕድሜዎ ስንት ነው (በመጨረሻ ያከበሩት የልደት ዘመን) ? ----- ዓመት		
103. የየትኛው ሀይማኖት ተክ ይ ነዎት?		
1. ኦርቶዶክስ	<input type="text"/>	
2. ካቶሊክ		
3. ፕሮቴስ ንት		
4. ሙስሊም		
5. ሀይማኖት የለኝም		
6. ሌላ ይግለጹ ----		
104. ያጠናቀቁት የትምህርት ደረጃ ስንት ነው?		
1. ማንበብና መፃፍ የማይችል	<input type="text"/>	
2. 1-4		
3. 5-8		
4. 9-10		
5. መስናዶ		
6. ተክኒክና ሙያ ሰርቲፊኬትና በላይ		
105. ብሔርዎ ምንድነው?		
1. ኦሮሞ	<input type="text"/>	
2. አማራ		
3. ትግሬ		
4. ቤንሻ		
5. ሱርማ		
6. ከምባ		
7. ሌላ /ይግለጹ/		
106. የጋብቻ ሁኔ ?		
1. ያገባ	<input type="text"/>	ኮድ2፤ 3 ወይም 4 ከተሞላ ወደ ጥያቄ 109 ይለፉ
2. ያለ ህጋዊ ትስስር አብሮ የሚኖር		
3. ፈፅሞ ያላገባ		
4. በሕግ የተፋ /የተለያየ/በሞት የተለየ		



107. ያገቡ ከሆነ በአሁኑ ወቅት ከባለቤትዎ ጋር አንድ ላይ ነው የሚኖሩትን?		
1. አዎን	<input type="text"/>	
2. የለም		
108. ከተለያዩ ምን ያህል ጊዜ ይሆኖ ል?		
1. ከአንድ ወር ያንሳል	<input type="text"/>	
2. 1-3 ወር		
3. 4-6 ወር		
4. 6ወር-1 ዓመት		
5. ከአንድ አመት በላይ		
109. የተወለዱት የት ነው?		
1. በዚህ ወረዳ ውስጥ	<input type="text"/>	
2. ቤንች ማጂ ዞን ውስጥ ከዚህ ወረዳ ውጭ		
3. ደቡብ ክልል ውስጥ ከቤንች ማጂ ዞን ውጭ		
4. ከደቡብ ክልል ውጭ በሌላ የሃገሪቱ ክፍል		
110. ለምን ያህል ጊዜ በዚህ ወረዳ ውስጥ ኖረዋል?		
1. ከ1 ዓመት ላነሰ ጊዜ	<input type="text"/>	
2. ከ1-3 ዓመት		
3. ከ3 ዓመት በላይ		
4. ከትውልድ ጀምሮ		
111. በወር ምን ያህል ገቢ ያገኛሉ?(በኢትዮጵያ ብር)		
ብር-----		

## ክፍል 2:- የአልኮል ና የዕፅ አጠቃቀም መረጃ

ጥያቄና አማራጭ መልሶች	መልስ/ኮድ/	መግለጫ
201. በየስንት ጊዜው ነው አልኮል የሚጠጡት?		
1. በየጊዜው /በየቀኑ	<input type="text"/>	
2. በየሳምንቱ		
3. በየወሩ		
4. አንዳንድ ጊዜ		
5. በበአላት ጊዜ		
6. በፍጹም ጠጥቼ አላውቅም		
202. በየስንት ጊዜ ነው ጫት የሚቅመው ?		
1. በየቀኑ	<input type="text"/>	
2. በየሳምንቱ		
3. በየወሩ		
4. አንዳንድ ጊዜ		
5. በበአላት ጊዜ		
6. በፍጹም ቅጫ አላውቅም		

203. በየስንት ጊዜው ነው ሺሻ የሚወስዱት/የሚጠቀሙት? 1. በየቀኑ 2. በየሳምንቱ 3. በየወሩ 4. አንዳንድ ጊዜ 5. በበአላት ጊዜ 6. በፍጹም ተጠቅሜ አላውቅም		
	<input type="text"/>	
204. ሌላ የሚጠቀሙት ዕጽ አለ? ይገለጽ-----		

### ክፍል 3 የወሲብ ባሕርያትን የተመለከተ መረጃ

ጥያቄና አማራጭ መልሶች	መልስ/ኮድ/	መግለጫ
301. የግብረ ስጋ ግንኙነት አድርገው ያውቃሉን? 1. አዎን 2. የለም	<input type="text"/>	ኮድ 2 ከተሞላ ወደ 401 ይሂዱ
302. ለመጀመሪያ ጊዜ የግብረ ሥጋ ግንኙነት ሲፈጽሙ ዕድሜዎ ስንት ነበር? (----- ) ዓመት		
303. ለመጀመሪያ ጊዜ የግብረ ሥጋ ግንኙነት ሲፈፅሙ ኮንዶም ተጠቅመው ነበር? 1. አዎን 2. የለም	<input type="text"/>	
304. ባለፉት 12 ወራት ውስጥ የግብረ ሥጋ ግንኙነት ፈጽመዋል? 1. አዎን 2. የለም	<input type="text"/>	ኮድ 2 ከተሞላ ወደ 309 ይሂዱ
305. ባለፉት 12 ወራት ከማን ጋር ነበር የግብረ ስጋ ግንኙነት የፈጸሙት (ከአንድ በላይ ሊመልሱ ይችላሉ)? 1. ቋሚ የትዳር ጓደኛ ጋር 2. ቋሚ ከሆነች ጓደኛ ጋር 3. ከሴተኛ አዳሪ ጋር 4. መደበኛ ከልሆነ/ከመይ ወቅ ሰው ጋር	<input type="text"/> <input type="text"/> <input type="text"/>	



310. ለመጨረሻ ጊዜ የግብረሰጋ ግንኙነት ሲፈፅሙ ኮንዶም ተጠቅመው ነበር?		
1. አዎን	<input type="checkbox"/>	
2. የለም		
311. ባለፉት 12 ወራት ገንዘብ በመስጠት ወይም በመቀበል ወይም በዕቃ ስጦ የግብረ ሰጋ ግንኙነት ፈጽመዋል?		
1. አዎን	<input type="checkbox"/>	
2. የለም		
312. ባለፉት 12 ወራት ገንዘብ በመስጠት ወይም በመቀበል ወይም በዕቃ ስጦ የግብረ ሰጋ ግንኙነት ሲፈጽሙ ኮንዶም ተጠቅመዋል?		
1. በጭራሽ አልጠቀምም		
2. አንዳንዴ ጠቀማለሁ	<input type="checkbox"/>	
3. ሁልጊዜ ጠቀማለሁ		

#### ክፍል 4 ዕውቀትና አመለካከትን የሚገልፅ መረጃ

ጥያቄና አማራጭ መልሶች	መልስ/ኮድ/	መግለጫ
401. ሰዎች ኮንዶምን በትክክል በመጠቀም ራሳቸውን በግብረሰጋ ግንኙነት አማካኝነት ከሚተላለፈው ከኤች አይቪ/ኤድስ በትክክል መከላከል ይችላሉን?		
1. አዎን		
2. የለም	<input type="checkbox"/>	
3 አላውቅም		
402. ሌሎች የመተላለፍያ መንገዶችን ትተን ሰዎች ለኤች አይቪ ያልተጋለጠ/ች አንድ ማኝ የፍቅር ጓደኛ ብቻ በመያዝ ኤች አይ ቪ/ ኤድስን መከላከል ይችላሉን?		
1. አዎን		
2. የለም	<input type="checkbox"/>	
3. አላውቅም		
403. ሰዎች ከግብረ ሥጋ ግንኙነት በመ ቀብ ከኤች አይ ቪ /ኤድስ ራሳቸውን መከላከል ይችላሉን?		
1. አዎን		
2. የለም	<input type="checkbox"/>	
3. አላውቅም		

<p>404. ብዙ የወሲብ ጓደኛ መኖሩ ለኤች አይ ቪ አድስ ያጋልጣል ብለው ያምናሉን?</p> <p>1. አዎን</p> <p>2. የለም</p> <p>3. አላውቅም</p>		
	<input type="checkbox"/>	
<p>405. አልኮልና አደንዛዥ ጾች ተጠቃሚ መሆን ለኤች አይ ቪ አድስ ያጋልጣል ብለው ያምናሉን?</p> <p>1. አዎን</p> <p>2. የለም</p> <p>3. አላውቅም</p>		
	<input type="checkbox"/>	
<p>406. አሁን ያሉት ባህሪ ለኤች አይ ቪ / ኤድስ ምን ያህል ያጋልጠኛል ብለው ያስባሉ?</p> <p>1. በከፍተኛ ሁኔ ሊያጋልጠኝ ይችላል</p> <p>2. ሊያጋልጠኝ ይችላል</p> <p>3. ሊያጋልጠኝም ላያጋልጠኝም ይችላል</p> <p>4. ሊያጋልጠኝ አይችልም</p> <p>5. በፍፁም አያጋልጠኝም</p>		
	<input type="checkbox"/>	
<p>407. ውጤቱን መግለጽ አያስፈልግም፡፡ ከዚህ በፊት በፈቃደኝነት ላይ የተመሠረተ የኤች አይ ቪ ኤድስ ምርመራ አድርገው ያውቃሉ?</p> <p>1. አዎን</p> <p>2. የለም</p>		
	<input type="checkbox"/>	

ክፍል5:- ባህላዊና ማሕበራዊ መረጃ

ጥያቄና አማራጭ መልሶች	መልስ/ኮድ/	መግለጫ
501. ለ ኔ ጠቃሚ የሆኑ ና የማከብራቸው ሰዎች የግብረ ስጋ ግንኙነት በሚያደርጉበት ጊዜ ኮንዶም ይጠቀማሉ?		
1. በጣም ስማማለሁ		
2. ስማማለሁ		
3. አላውቅም	<input type="text"/>	
4. አልስማማም		
5. በጣም አልስማማም		
502. ለኔ ጠቃሚ የሆኑና የማከብራቸው ሰዎች ኔ ኮንዶም ንድጠቀም ያበረ ቱኛል/ይመክሩኛል ?		
1. በጣም ስማማለሁ		
2. ስማማለሁ		
3. ልጠቃምም ላልጠቃምም ችላለሁ	<input type="text"/>	
4. አልስማማም		
5. በጣም አልስማማም		
503. የዚህ ማሕበረሰብ በህል ከአንድ በላይ የግብረ ስጋ ቅደኛ መያዝ ይፈልቅዳል?		
1. አዎን	<input type="text"/>	
2. የለም		
504. የዚህ ማሕበረሰብ በህል ኮንዶም መጠቀምን ይደግፋል?		
1. አዎን	<input type="text"/>	
2. የለም		
505. ለምን ያህል ጊዜ በባህላዊ የወርቅ ማምረት ስራ ተሰማሩ?		
1. ከ1 ዓመት በ ች		
2. ከ1-2 ዓመት	<input type="text"/>	
3. ከ3 ዓመት በላይ		